

In the claims

1. (currently amended) A method comprising:  
evicting a first memory line currently stored in a cache and storing a second memory line not currently stored in the cache in place of the first memory line in the cache;  
while evicting the first memory line, temporarily storing the second memory line in a buffer, the buffer also storing eviction data regarding the first memory line;  
upon eviction of the first memory line, moving the second memory line from the buffer into the cache,  
wherein the eviction data is stored in only the buffer, such that the eviction data is never stored in any buffer other than the buffer.
2. (original) The method of claim 1, further initially comprising receiving a transaction relating to the second memory line not currently in the cache.
3. (original) The method of claim 1, further comprising, after temporarily storing the second memory line in the buffer, providing a response indicating that a transaction relating to the second memory line has been performed.
4. (original) The method of claim 1, wherein evicting the first memory line currently stored in the cache comprises inserting the first memory line in an eviction queue of memory lines to be evicted from the cache.
5. (original) The method of claim 1, wherein temporarily storing the second memory line in the buffer comprises temporarily storing the second memory line in a data transfer buffer (DTB).

6. (original) The method of claim 1, further initially comprising converting a transaction to which the second memory line relates into the set of concurrently performable actions using a multiple-stage pipeline.

7. (original) The method of claim 6, wherein evicting the first memory line currently stored in the cache comprises inserting the first memory line in an eviction queue of memory lines to be evicted from the cache after the transaction has been converted into the set of concurrently performable actions.

8. (original) The method of claim 6, wherein temporarily storing the second memory line in the existing buffer comprises temporarily storing the second memory line in a data transfer buffer (DTB).

9. (original) The method of claim 6, further comprising, after temporarily storing the second memory line in the buffer, providing a response indicating that the transaction has been performed.

10.-20. (cancelled)